GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:4493
ANSWERED ON:29.03.2017
Radiation Emission
Premachandran Shri N.K.

Will the Minister of ATOMIC ENERGY be pleased to state:

(a)whether the Government has conducted a study regarding the emission of radiation from nuclear power stations and if so, the details and the outcome thereof and if not, the reasons therefor;

(b)the mechanism available with the Government to evaluate the radiation emission from each nuclear power station;

(c)whether the Government proposes to introduce a regulatory system for monitoring of nuclear power stations and if so, the details thereof and if not, the reasons therefor;

(d)the initiatives taken by the Government to prevent accidents in nuclear power stations along with the details of mechanism adopted for the disposal of nuclear waste; and

(e)whether the Government proposes to adopt a transparent system for the management of nuclear power stations and if so, the details thereof and if not, the reasons therefor?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH) :

(a)Yes, sir. Nuclear safety aspects are reviewed by Atomic Energy Regulatory Board (AERB) before giving clearance for various stages of the Nuclear Power Projects (NPP) from siting stage onwards. The radiation emissions from a Nuclear Power Plant are controlled and regulated as per the guidelines stipulated by the Atomic Energy Regulatory Board (AERB) in accordance with the Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987 and the requirements of AERB Safety Code on 'Management of Radioactive Waste (AERB/SC/RW)'. The radiation emissions from NPPs have generally remained a small fraction of AERB authorized limits. The emissions are monitored by the NPP and are periodically reported to AERB.

(b)Environmental Survey Laboratories (ESLs) are set up at all power reactor sites under DAE well before the commissioning of the reactor. ESLs carry out pre-operational survey around the plant site to establish the pre-operational baseline radioactivity levels around the site. During operation period of the reactor, environmental samples from both atmospheric and aquatic environment such as air, water, soil, vegetations, agricultural produces, milk, meat, fish and other dietary products are collected periodically and analyzed for radioactivity to assess the impact of operation of the plant on the surrounding environment and the public. ESLs are equipped with highly sensitive instruments and sufficient infrastructure to analyze extremely low levels of radioactivity and radiation in environmental samples.

(c)Government of India has established Atomic Energy Regulatory Board (AERB) for regulatory supervision of NPPs.

(d)AERB has issued codes, guides and manuals to be adhered to at every stage of NPP. These documents of AERB take into account the prevailing international standards and industrial best practices. Adherence to the requirements stipulated in these documents ensure safe operation of NPPs. The nuclear waste disposal is carried out as per well laid down procedures and guidelines stipulated by the Atomic Energy Regulatory Board (AERB) in accordance with the Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, 1987 and the requirements of AERB Safety Code on 'Management of Radioactive Waste.

(e)There is already a transparent system of management of nuclear power stations, which is periodically reviewed by the regulatory authority.
****